

KIC 006967430

Q1-17 DR25 TCE Parameters

TCE	Run Type	KOI?	Period (Days)	Epoch (BKJD)	Depth (ppm)	Duration (Hours)	MES	SNR	R_{\star} (R_{\odot})	T_{\star} (K)	R_p (R_{\oplus})	S_p (S_{\oplus})
006967430-01	OBS	6801.01	4.007650	134.815483	67.2	3.428	9.1	10.6	1.03	6045	0.94	498.83

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
006967430-01	OBS	FP	0.00	0	0	0	1	EPHEM_MATCH

Notes: OBS = Observed. INJ = Injected. INV = Inverted. SCR = Scrambled.

N = Not Transit-Like. S = Stellar Eclipse. C = Centroid Offset. E = Ephemeris Match.

See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 006967430-01

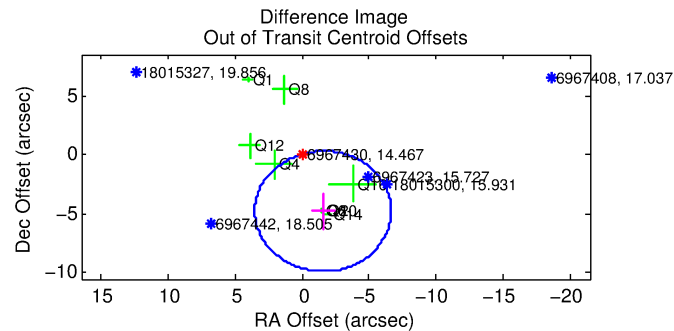
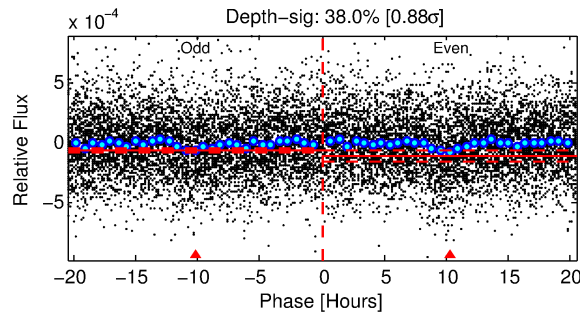
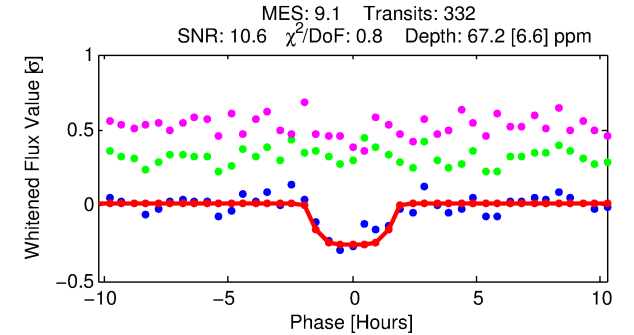
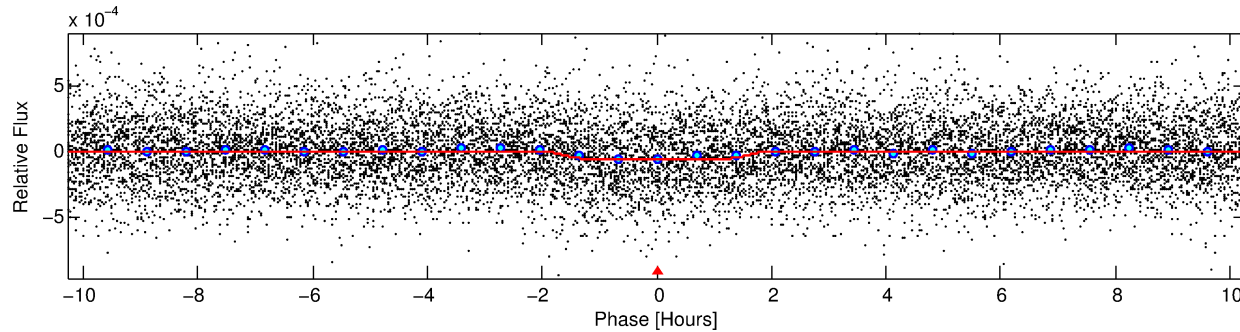
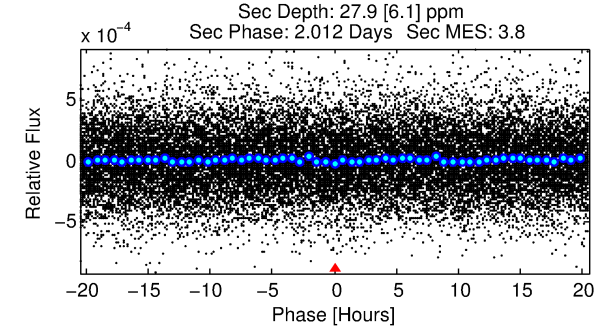
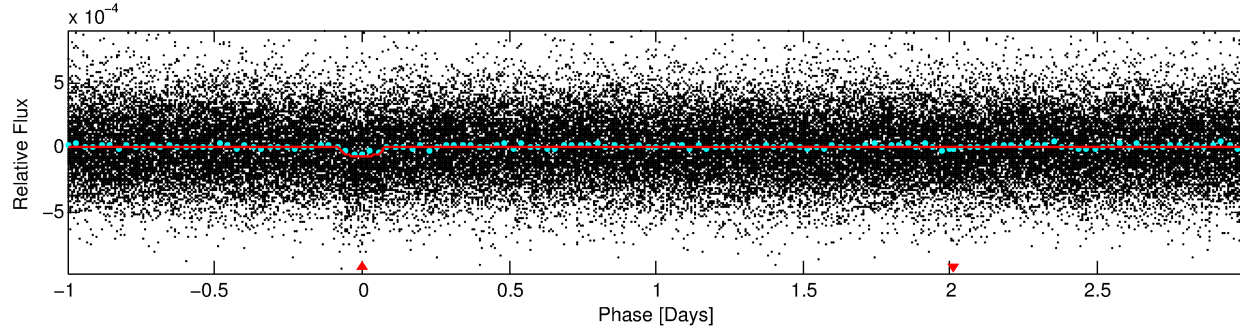
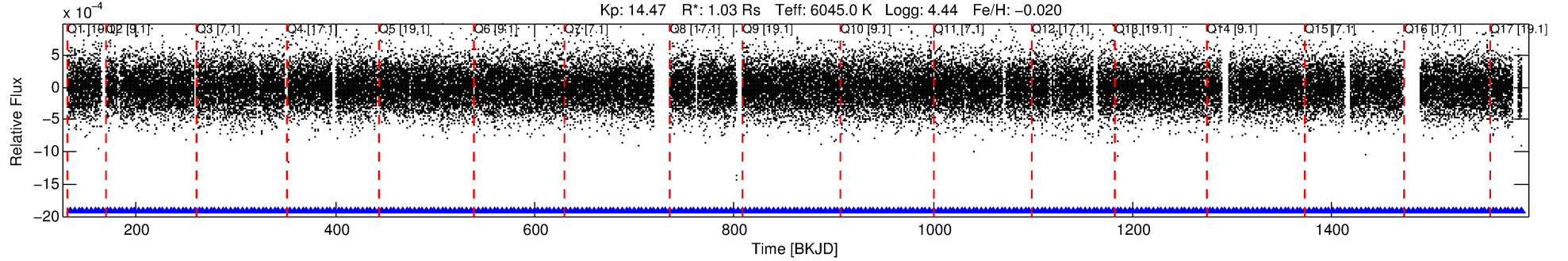
TCE (1)	KIC	Parent (2)	Parent KIC	$P_1:P_2$	Dist ($''$)	Δ Row	Δ Col	m_2	m_1	D_2/D_1	Mechanism	Flag	σ_P	σ_T
006967430-01	6967430	7048.01	8504570	1:1	8373.6	1	2	13.25	14.47	2526.60	Cross-Talk	0	0.74	0.64

Notes: $P_1:P_2$ is the period ratio. Dist is the distance in arcseconds. Δ Row and Δ Col are the number of pixels apart in row and column. m_2 and m_1 are the magnitudes of the parent and child. D_2/D_1 is the parent's transit depth divided by the child's. σ_P and σ_T are the significance of the match in period and epoch. For a match to be considered significant $\sigma_P < 5.0$ and $\sigma_T < 5.0$. Matches which have σ_P and σ_T very close to this cutoff should receive extra scrutiny, especially if the period ratio is very large.

DV One-Page Summary

KIC: 6967430 Candidate: 1 of 1 Period: 4.008 d

KOI: K06801 Corr: No Ephemeris Match



DV Fit Results:

Period = 4.00765 [0.00003] d
Epoch = 134.8155 [0.0051] BKJD
Rp/R* = 0.0084 [0.0039]
a/R* = 5.37 [11.76]
b = 0.82 [0.95]
Seff = 498.83 [211.80]
Teq = 1205 [128] K
Rp = 0.94 [0.53] Re
a = 0.0503 [0.0137] AU
Ag = 43.98 [45.30] [0.95σ]
Teffp = 4798 [1148] K [3.11σ]

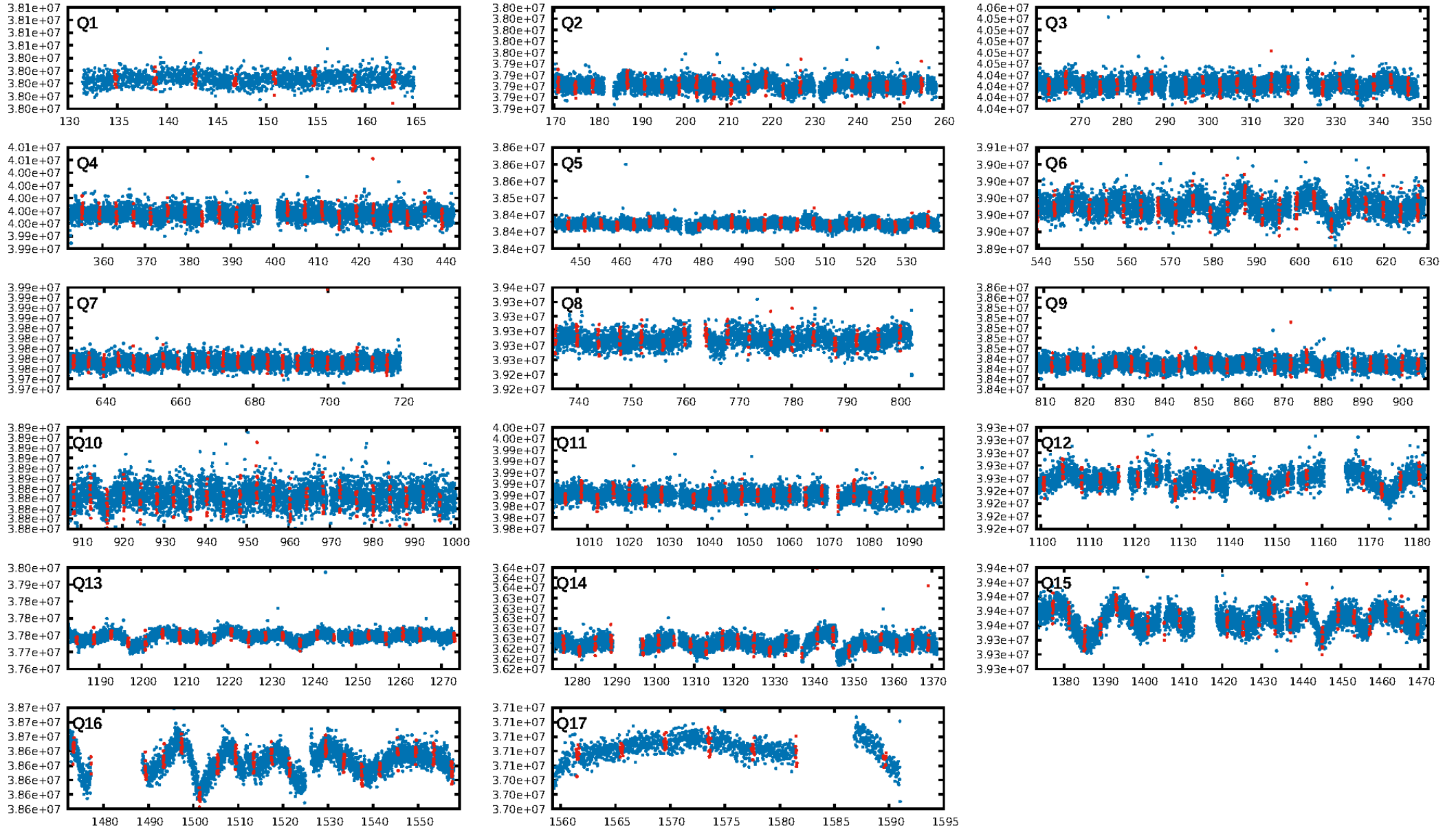
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: 8.94e-19
RollingBand-fgt: 1.00 [317/317]
GhostDiagnostic-chr: 0.394
Centroid-sig: 1.0%
Centroid-so: 2.448 arcsec [2.03σ]
OotOffset-rm: 5.020 arcsec [2.96σ]
KicOffset-rm: 4.979 arcsec [3.55σ]
OotOffset-st: 4/0/4/1 [9]
KicOffset-st: 4/0/4/1 [9]
DiffImageQuality-fgm: 0.56 [5/9]
DiffImageOverlap-fno: 1.00 [17/17]

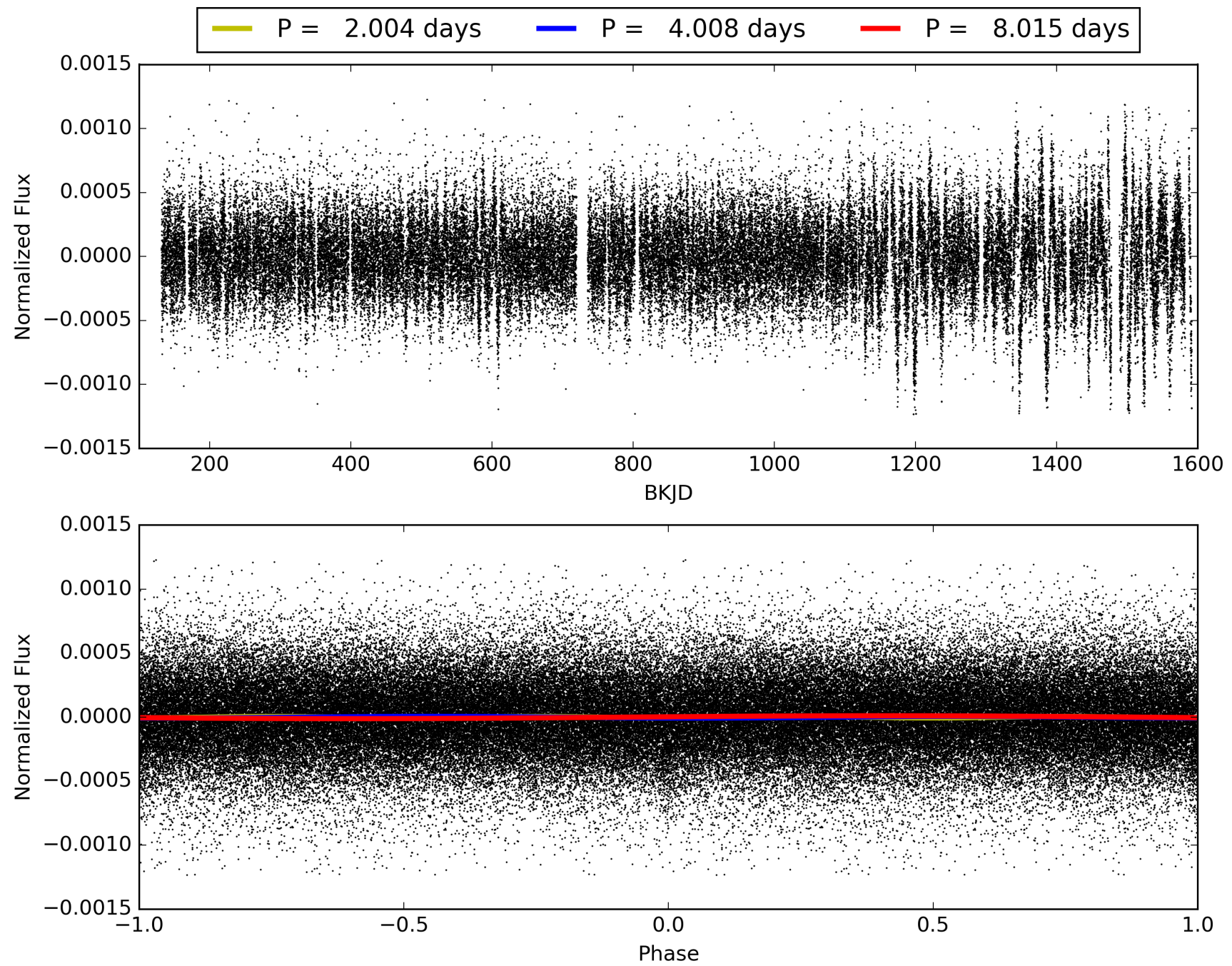
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 30-Jan-2016 15:19:04 Z

This Data Validation Report Summary was produced in the Kepler Science Operations Center Pipeline at NASA Ames Research Center

TCE 006967430-01, PDC Light Curves

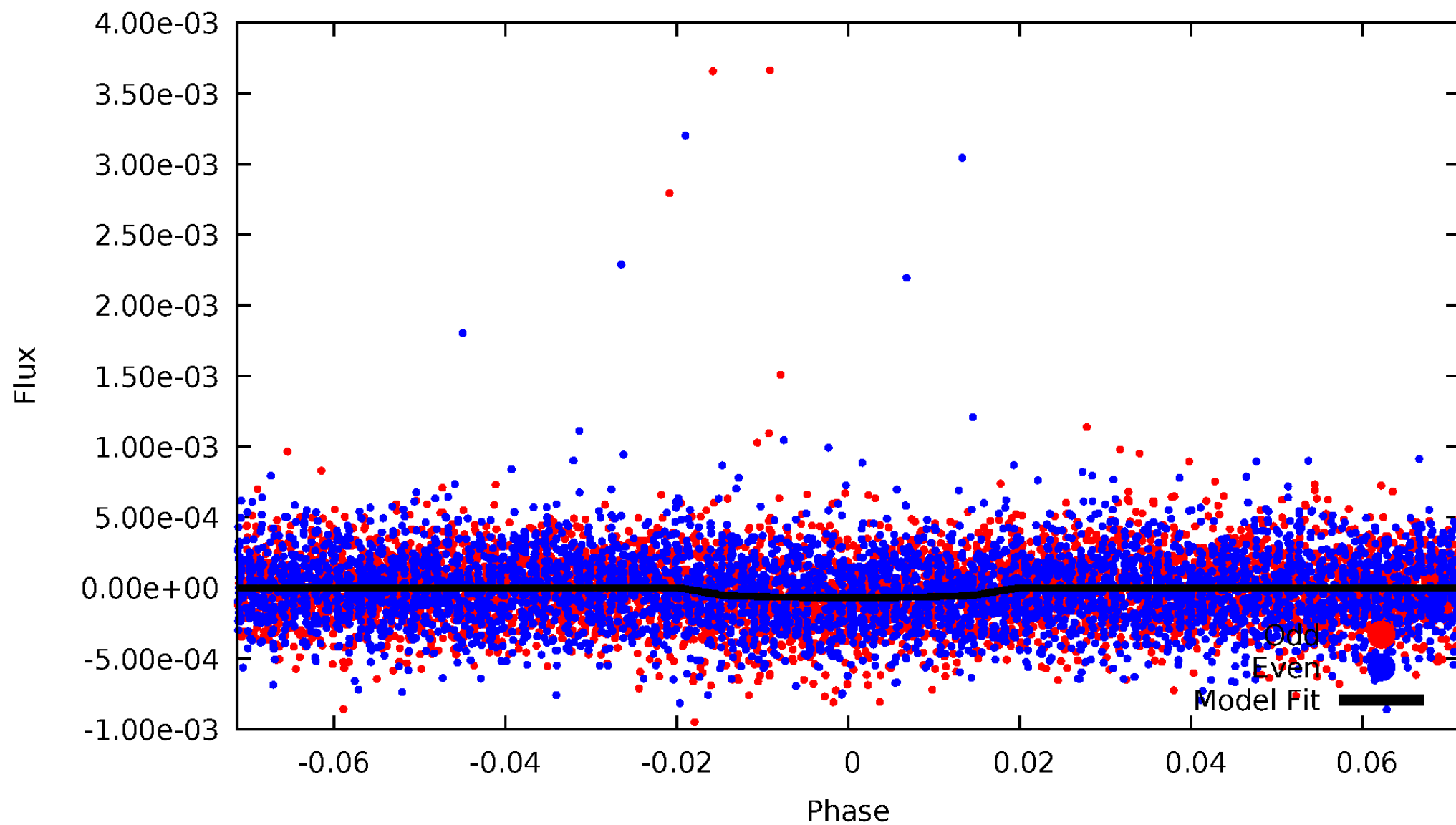


TCE 006967430-01



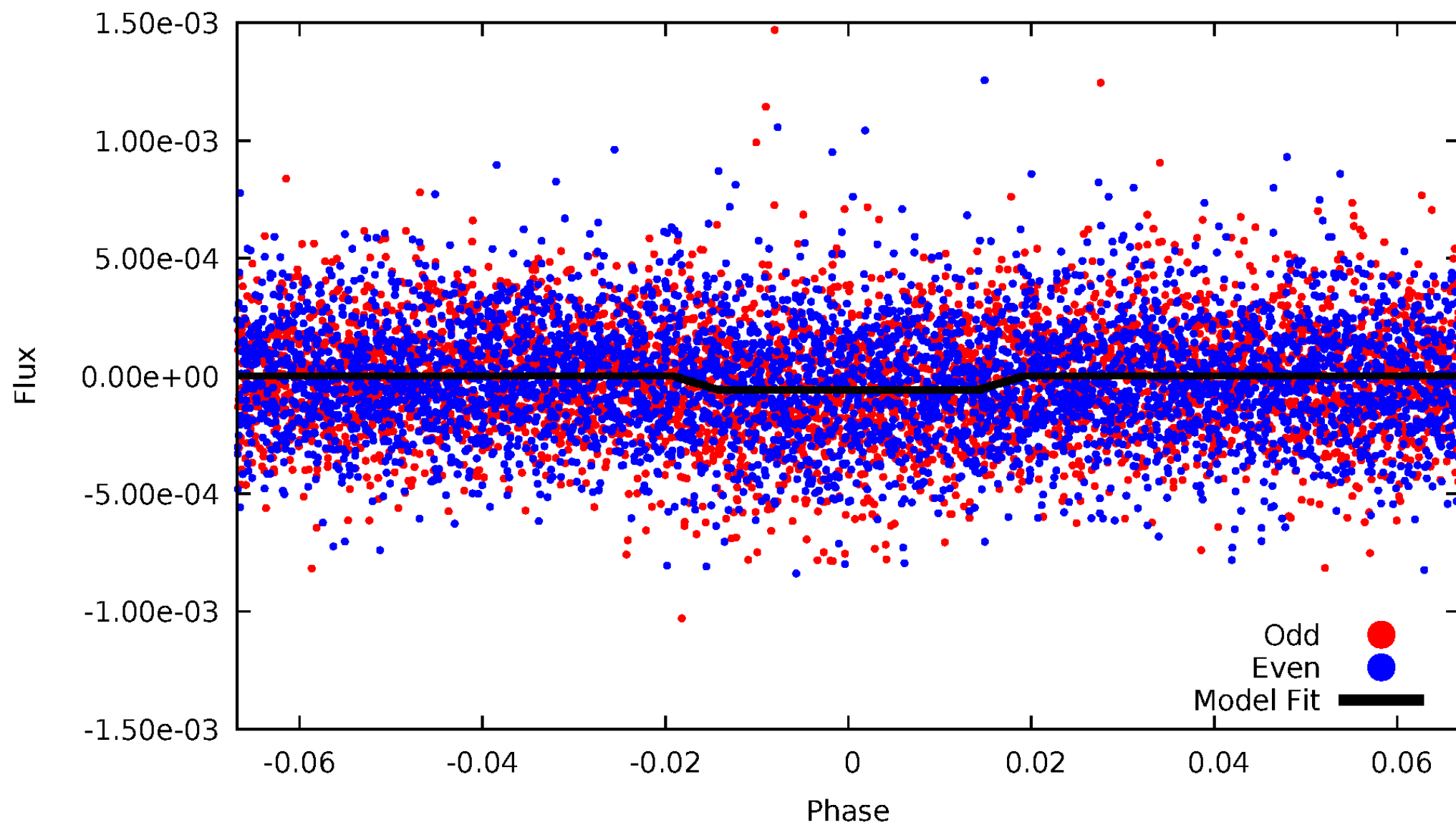
DV Odd/Even

TCE 006967430-01



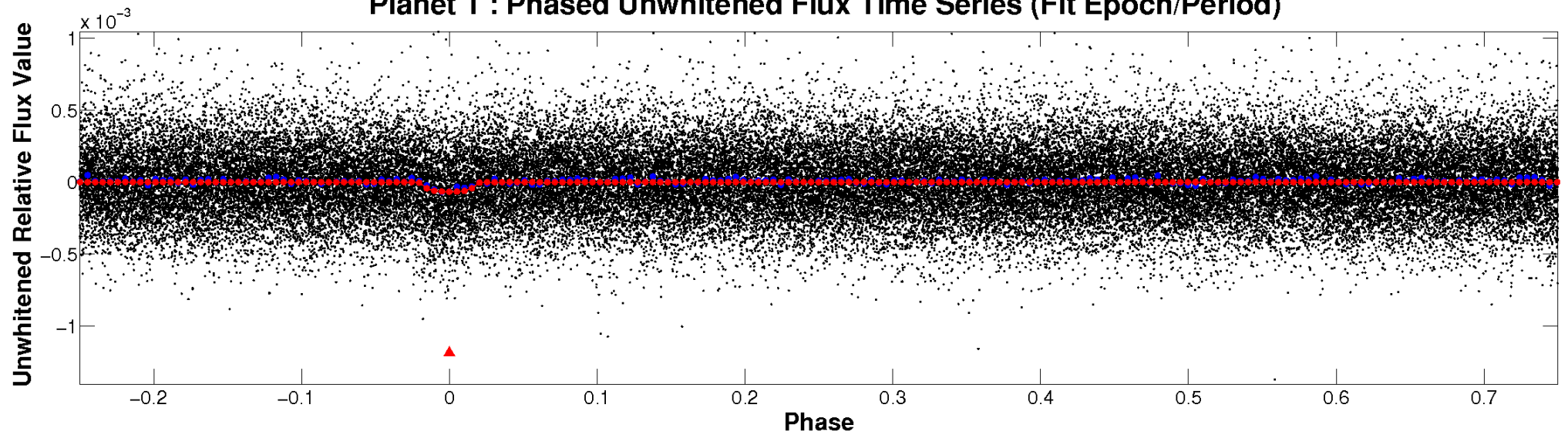
ALT Odd/Even

TCE 006967430-01

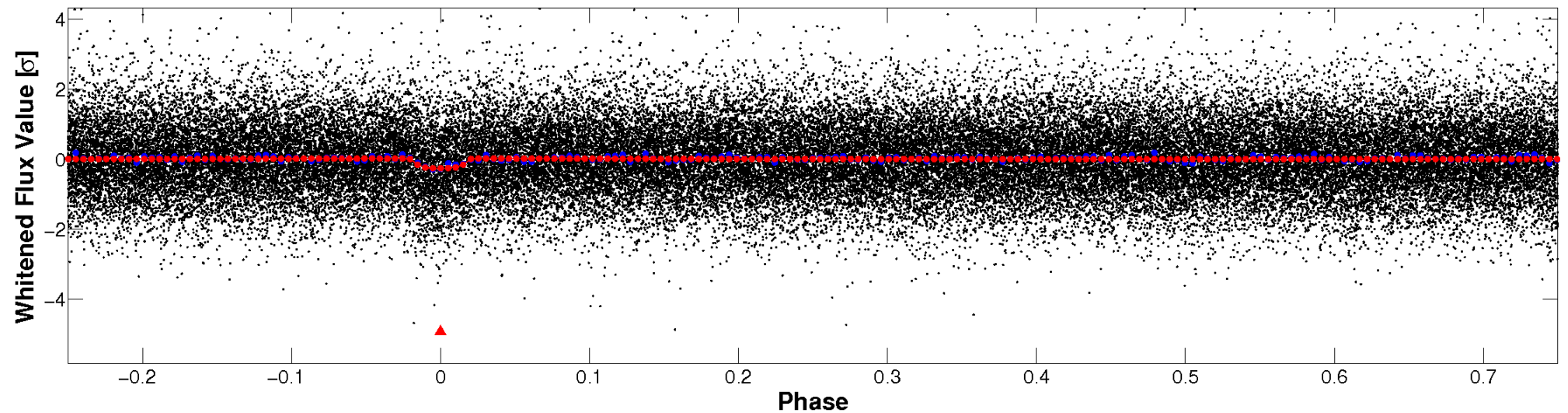


Non-Whitened Vs. Whitened Light Curve

Planet 1 : Phased Unwhitened Flux Time Series (Fit Epoch/Period)

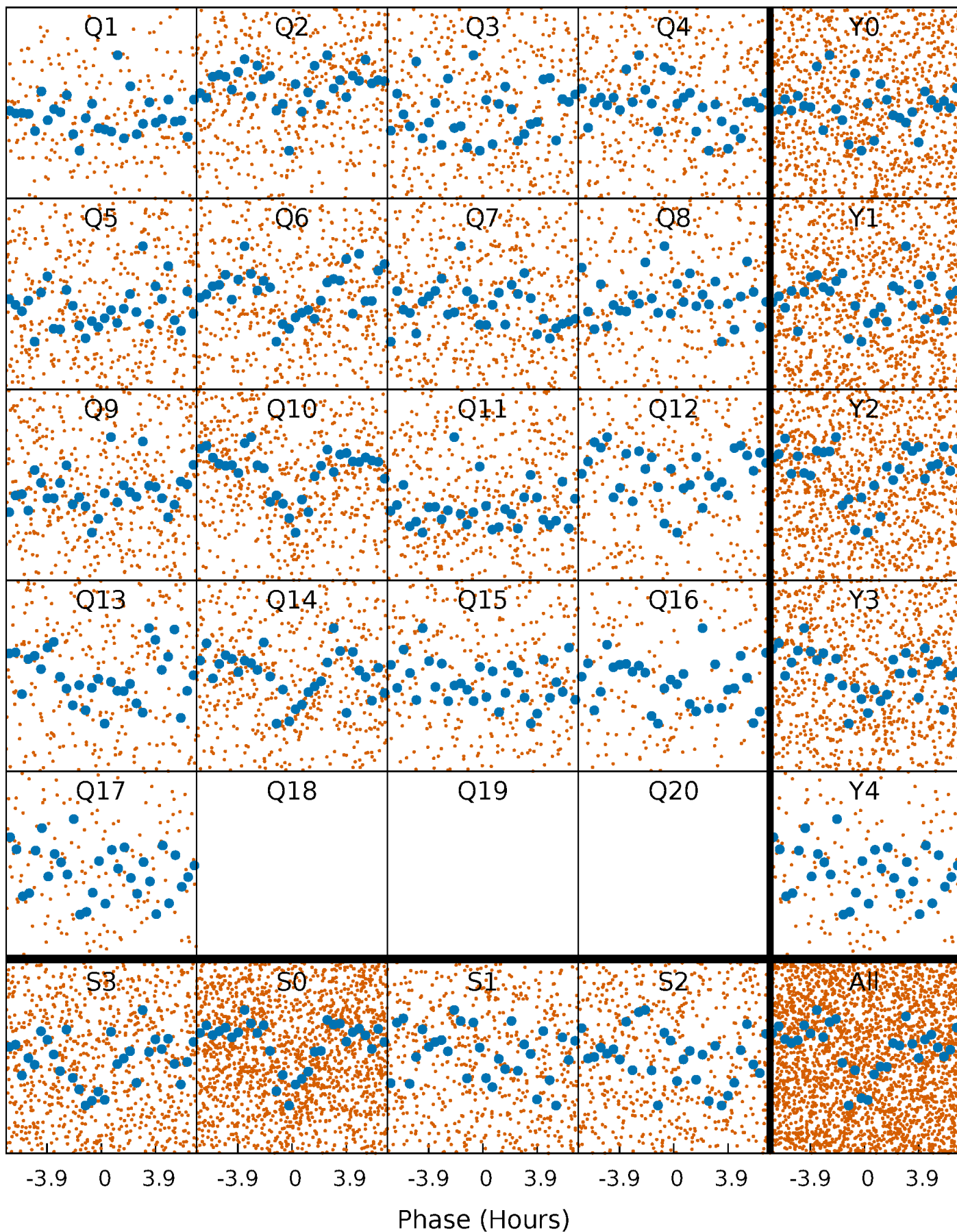


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



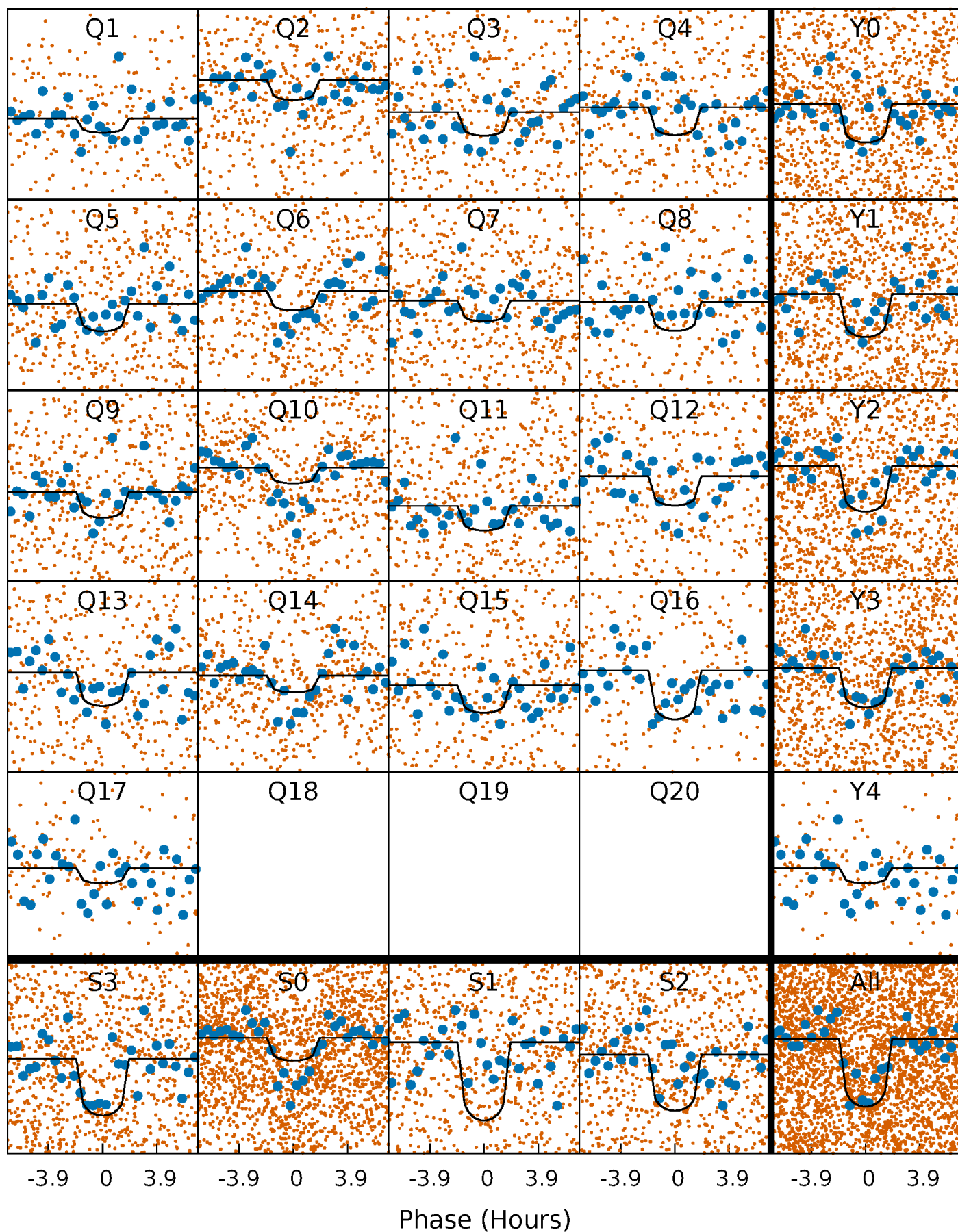
PDC Quarter-Phased Transit Curves

TCE 006967430-01 P= 4.007650 Days $T_0=134.815483$ (BKJD)



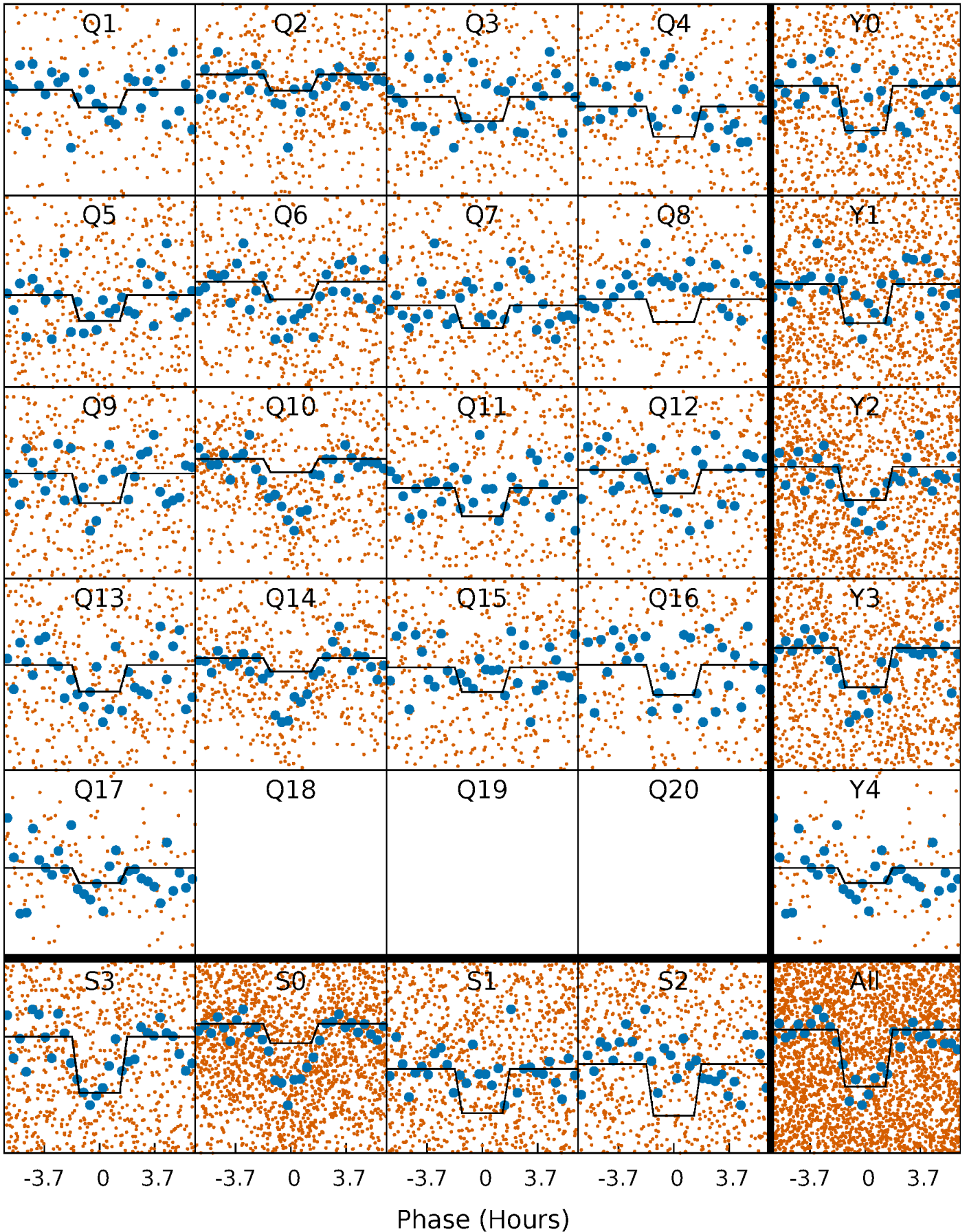
DV Quarter-Phased Transit Curves

TCE 006967430-01 P= 4.007650 Days $T_0=134.815483$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

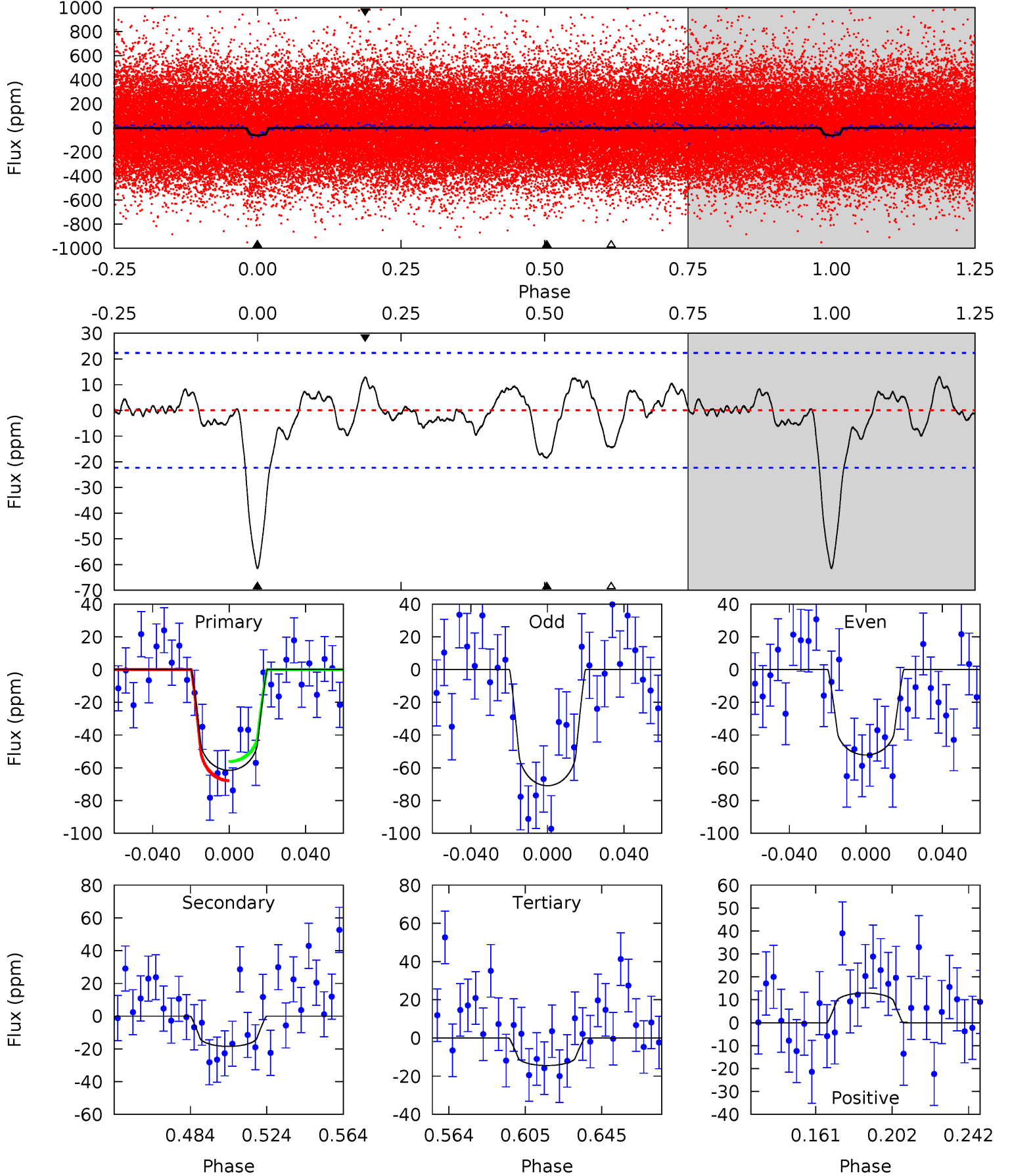
TCE 006967430-01 P= 4.007637 Days $T_0=134.816664$ (BKJD)



DV Model-Shift Uniqueness Test

006967430-01, P = 4.007650 Days, E = 130.807833 Days

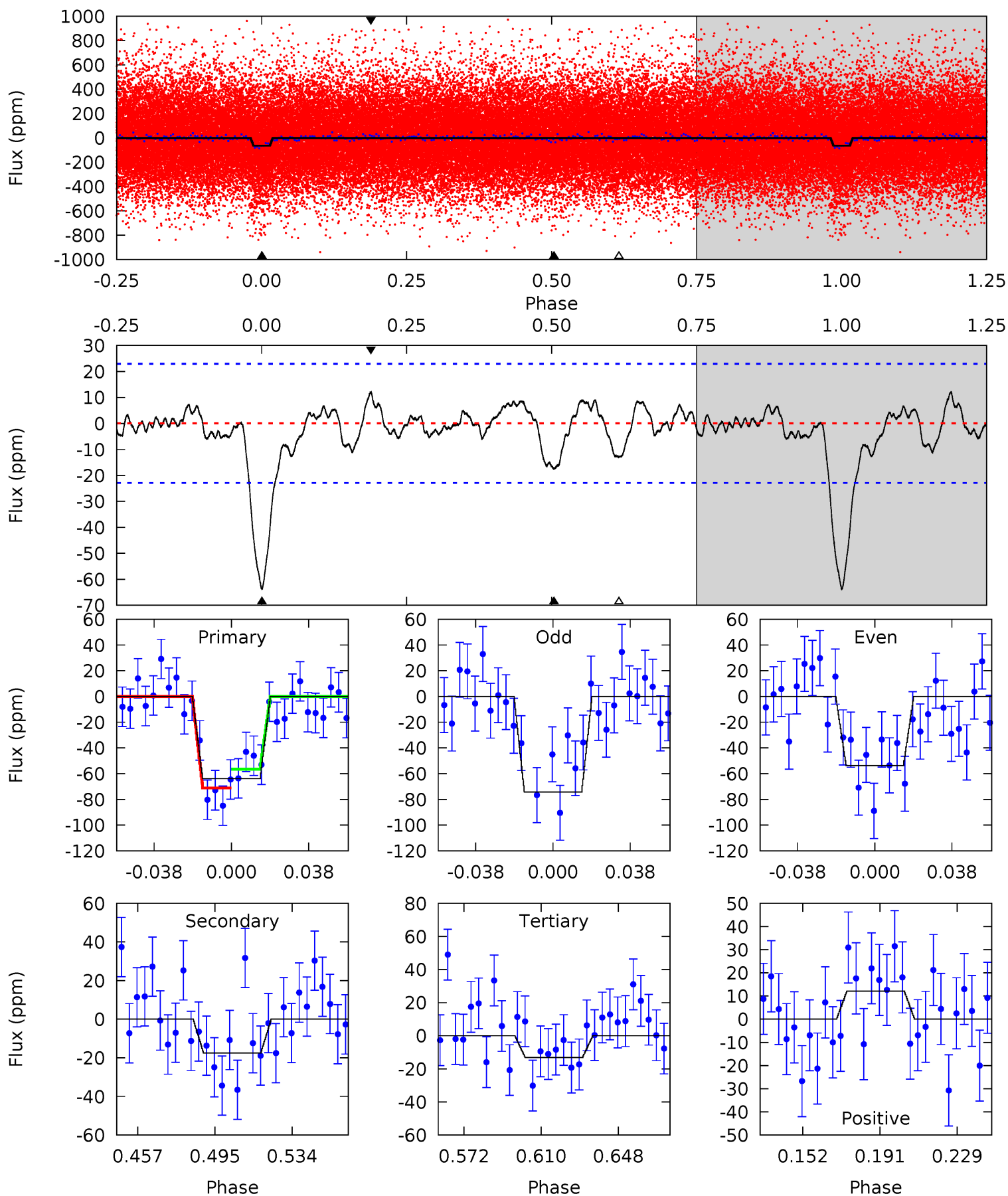
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
13.1	3.93	3.07	2.75	4.75	2.05	1.26	10.0	10.3	0.87	1.18	2.00	0.90	0.17	1.24



Alt Model-Shift Uniqueness Test

006967430-01, P = 4.007637 Days, E = 130.809027 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
13.3	3.64	2.72	2.52	4.76	2.07	1.07	10.6	10.8	0.92	1.12	2.14	1.24	0.16	1.51



Stellar Parameters For KIC 006967430

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	$M(M_{\odot})$	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	6045^{+163}_{-199}	$4.439^{+0.070}_{-0.224}$	$-0.020^{+0.250}_{-0.300}$	$1.028^{+0.326}_{-0.116}$	$1.055^{+0.145}_{-0.130}$	$1.369^{+0.403}_{-0.736}$
	+3%/-3%	+2%/-5%	+1250%/-1500%	+32%/-11%	+14%/-12%	+29%/-54%
Source	PHO1	KIC0	KIC0	DSEP		

KIC = Kepler Input Catalog; PHO = Photometry; SPE = Spectroscopy; AST = Asteroseismology
 TRA = Transits; DESP = Dartmouth Models; MULT = Multiple Models

Secondary Eclipse Parameters for KIC 006967430-01 / KOI 6801.01

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-18 ± 5	$1.00^{+0.47}_{-0.47}$	1710^{+132}_{-89}	4431^{+1299}_{-616}	25^{+62}_{-15}
Alt.	-18 ± 5	$0.94^{+0.48}_{-0.43}$	1719^{+124}_{-96}	4505^{+1506}_{-667}	26^{+69}_{-15}

T_{max} = Theoretical Maximum Planetary Temperature
 T_{obs} = Observed Planetary Temperature (Assuming $A=0.3$)
 A_{obs} = Observed Albedo (Assuming $T=0$)

If a secondary eclipse is present, the system is likely an EB if $T_{obs} \gg T_{max}$ AND $A_{obs} \gg 1.0$

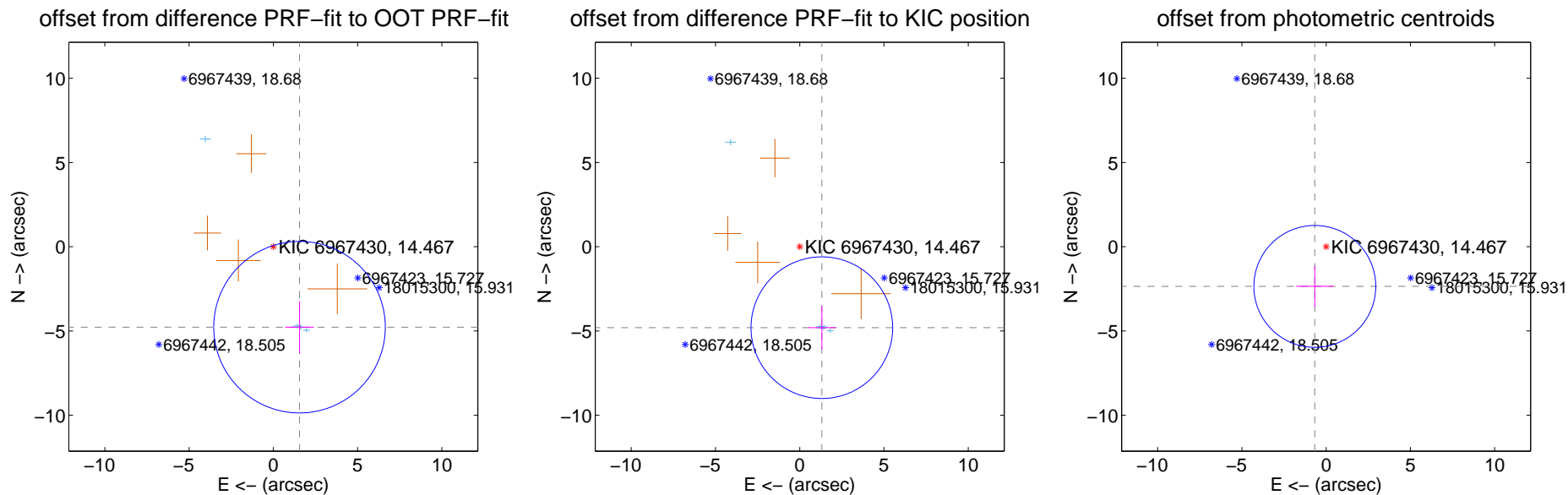
DV Centroid Data

Supplemental centroid analysis for 006967430-01. Kepler magnitude: 14.47. Transit SNR 10.63

There are 5 quarters with good PRF difference image offsets

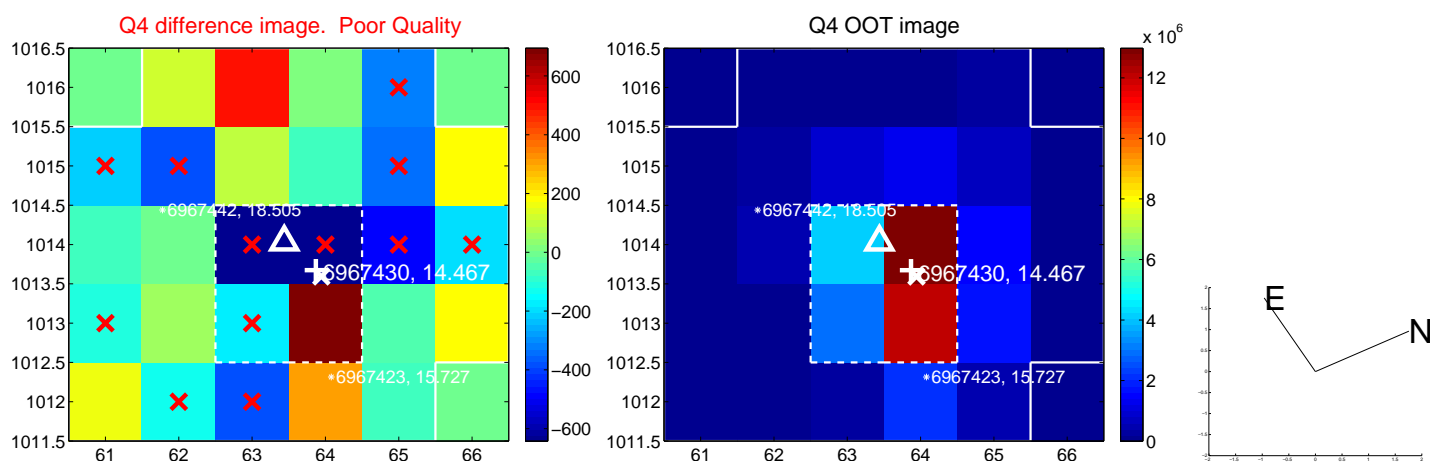
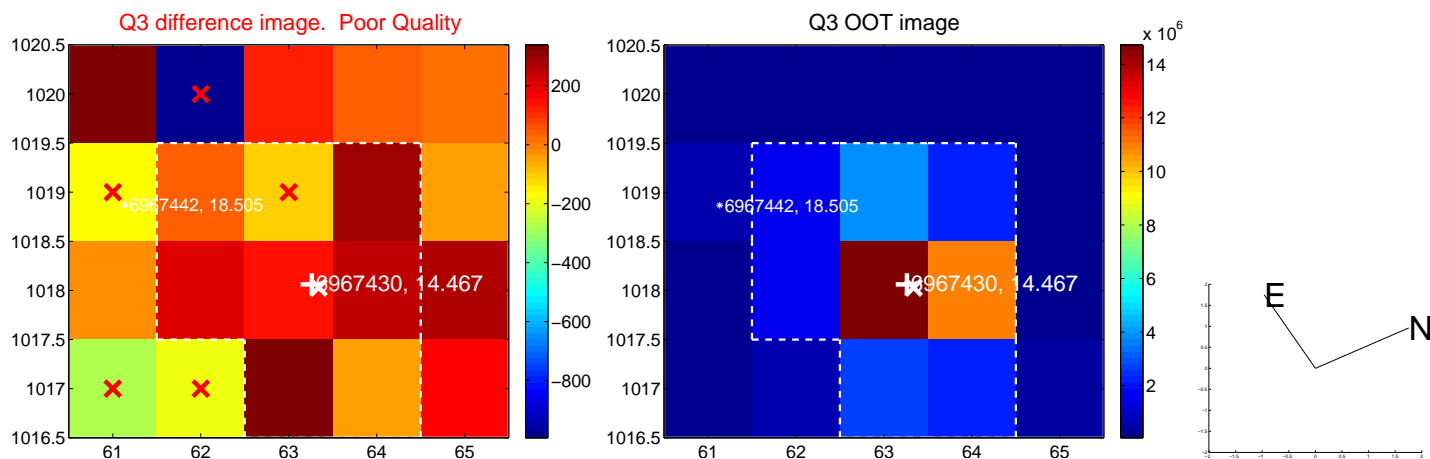
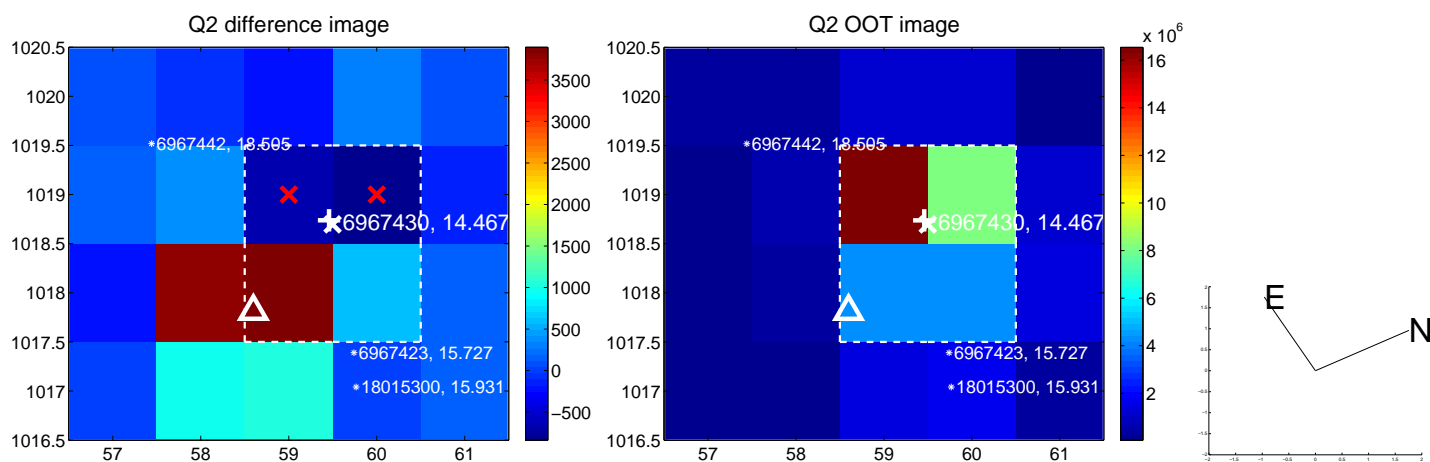
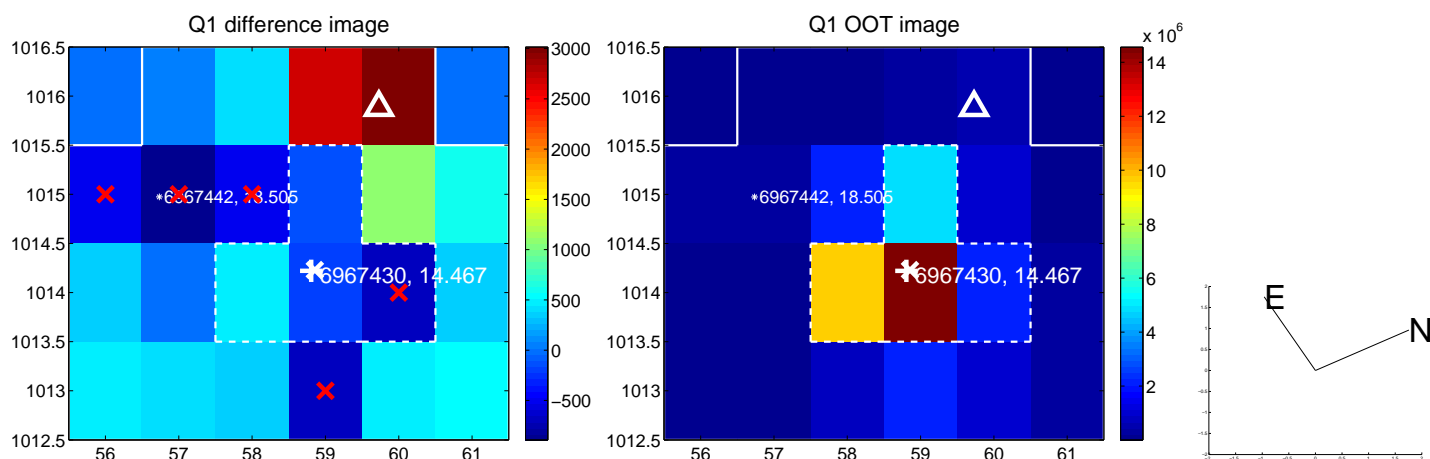
The direct PRF centroid is offset from the target star catalog position by about 0.32 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	5.020 ± 1.697	2.96	-1.552 ± 0.858	-4.774 ± 1.556
PRF-fit source offset from KIC position	4.979 ± 1.401	3.55	-1.311 ± 0.818	-4.804 ± 1.274
photometric centroid source offset	2.45 ± 1.21	2.03	0.67 ± 1.11	-2.35 ± 1.21

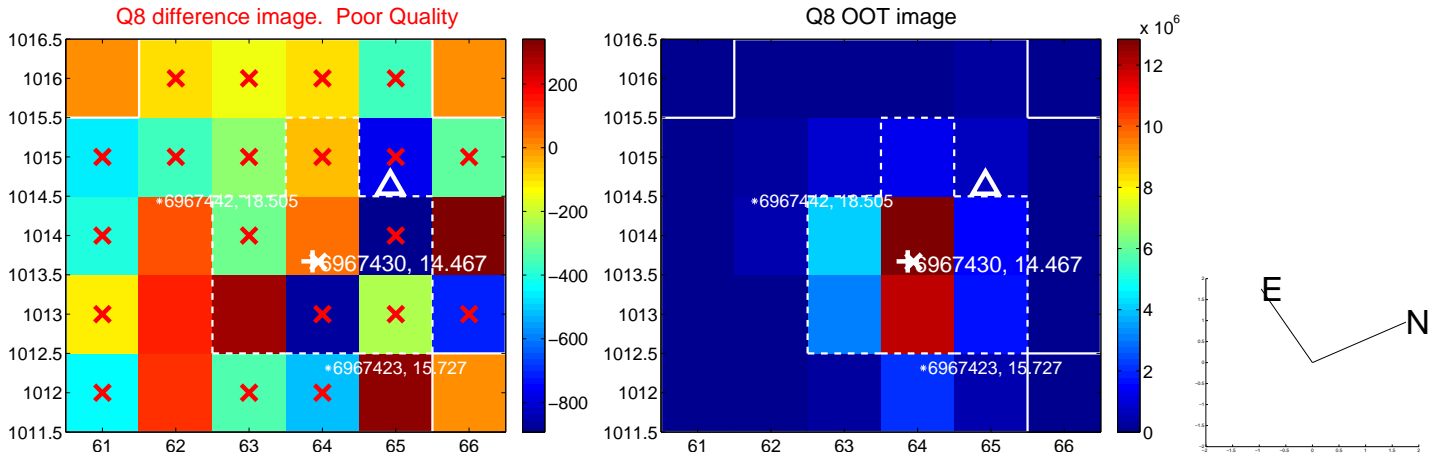
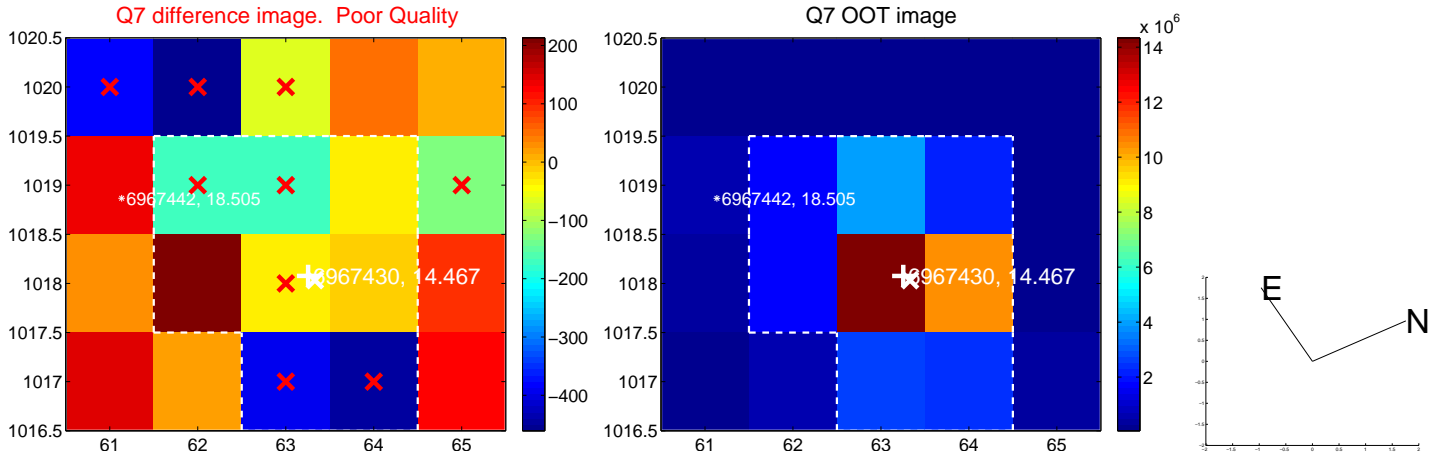
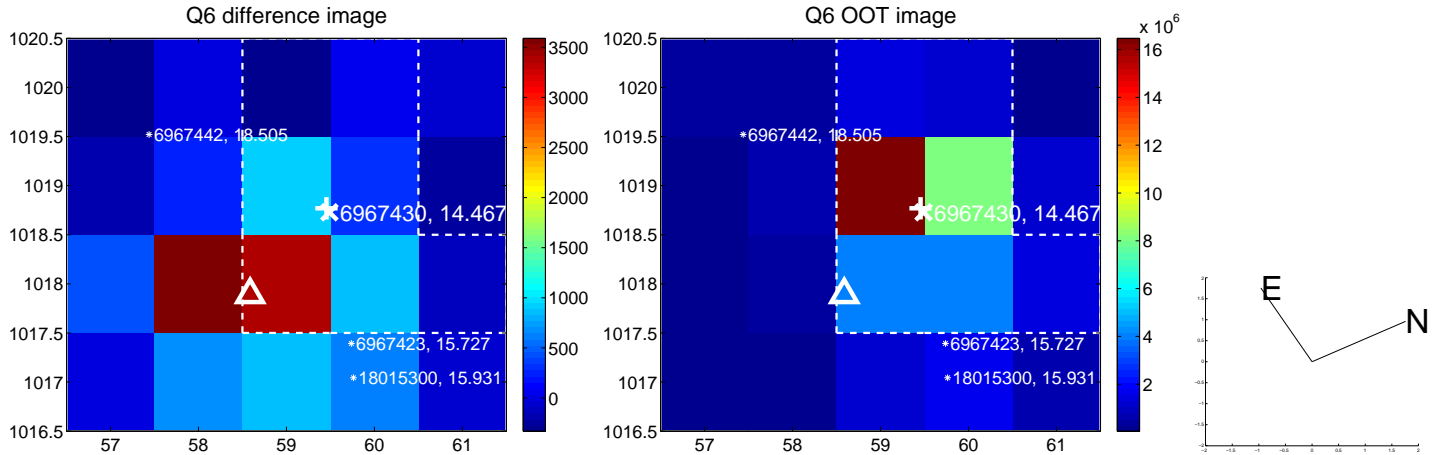
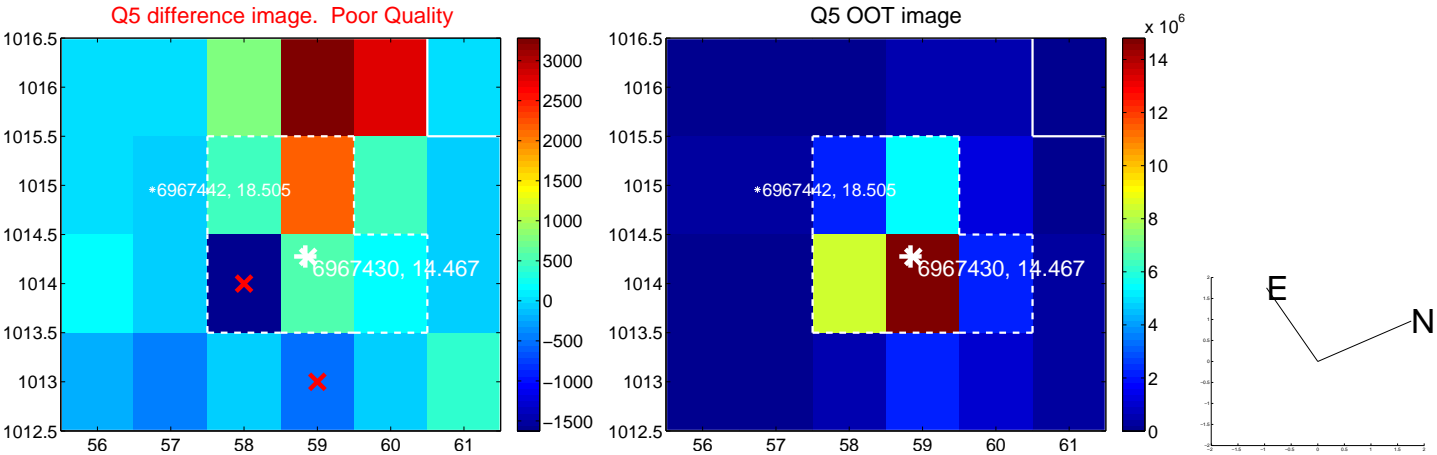


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets**; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ . Red *: target star. Blue *: Other stars. Text next to a star gives its KIC ID and kepmag. KIC IDs > 15,000 are from the UKIRT catalog.

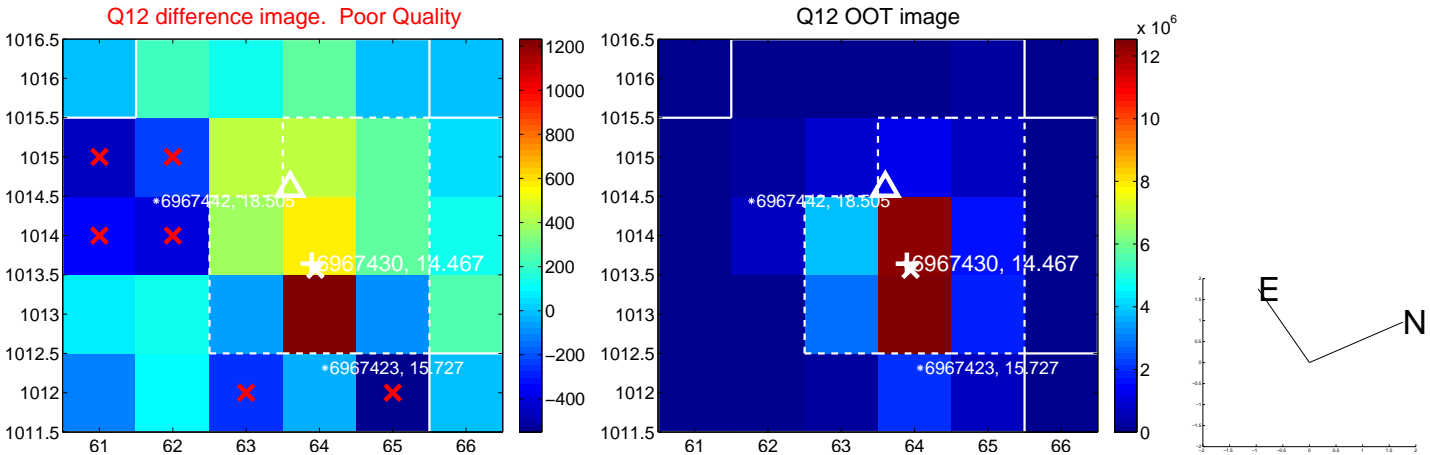
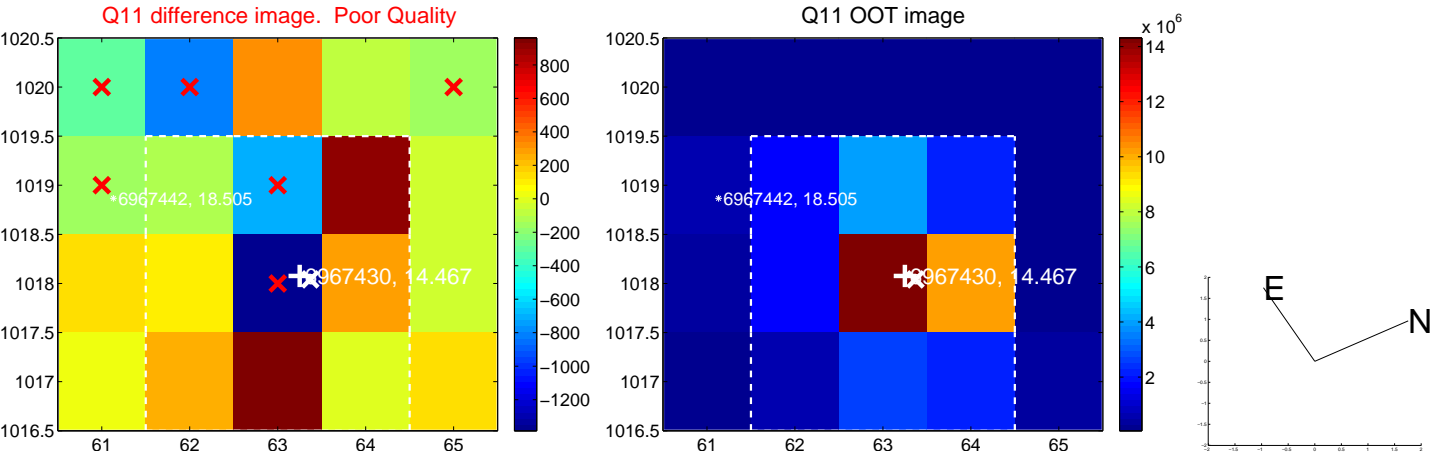
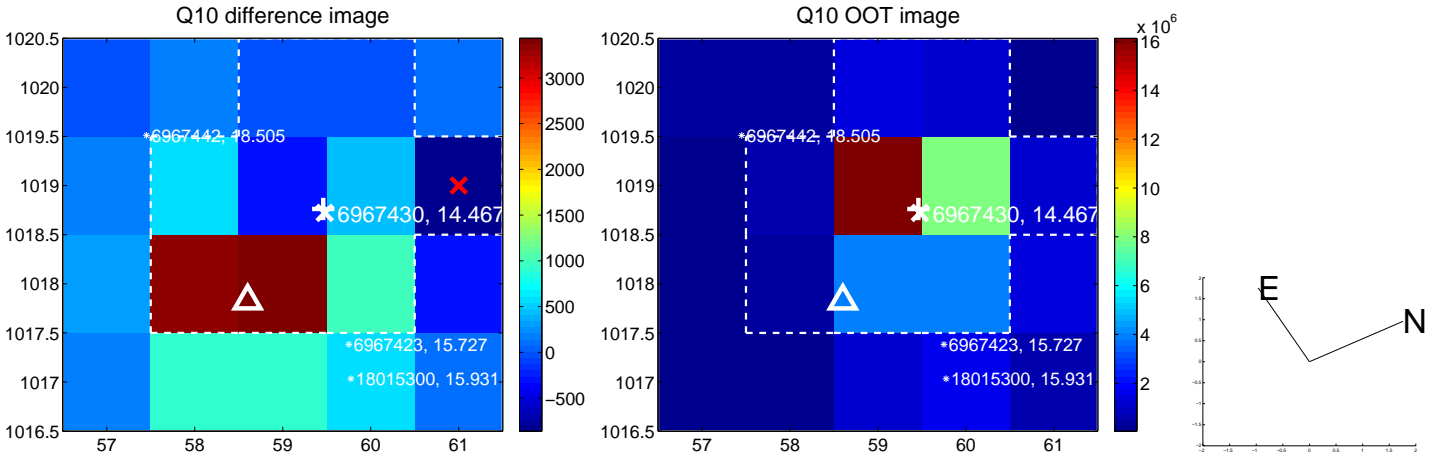
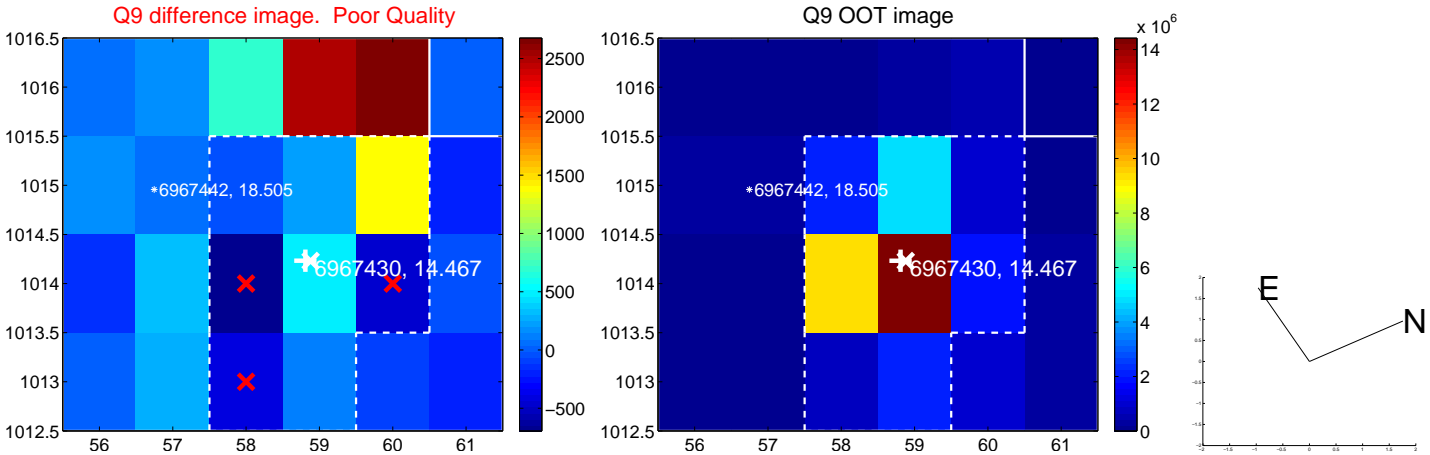
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



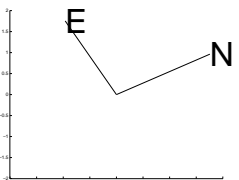
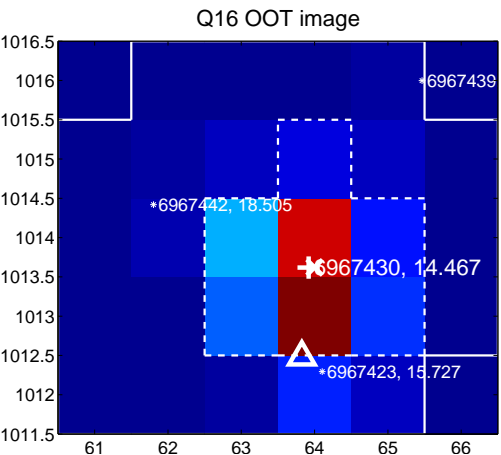
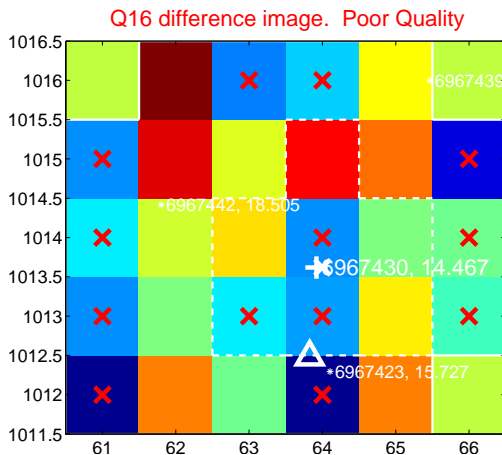
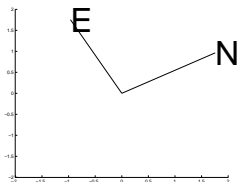
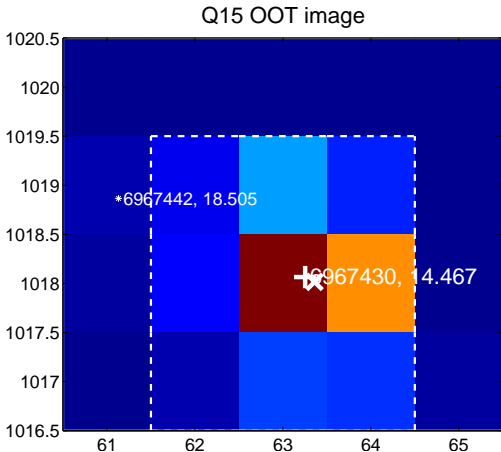
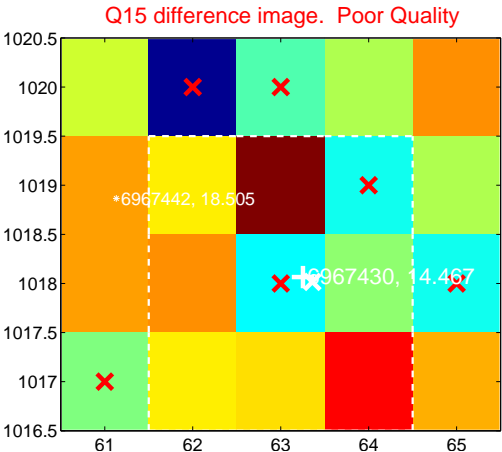
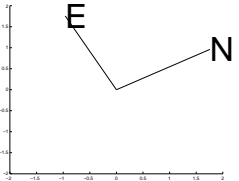
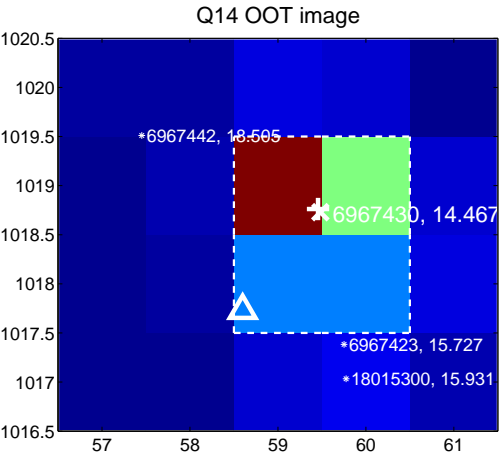
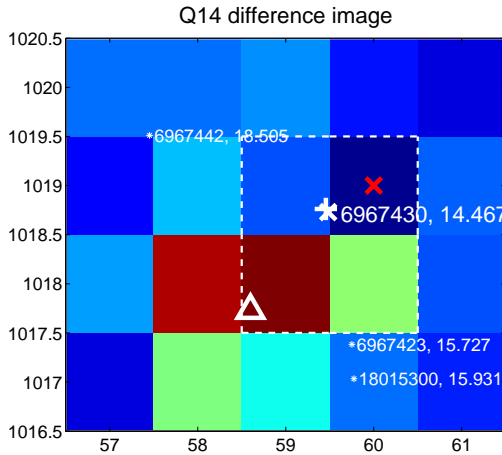
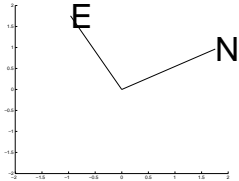
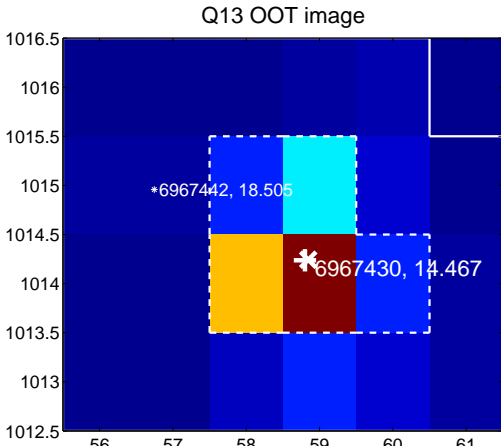
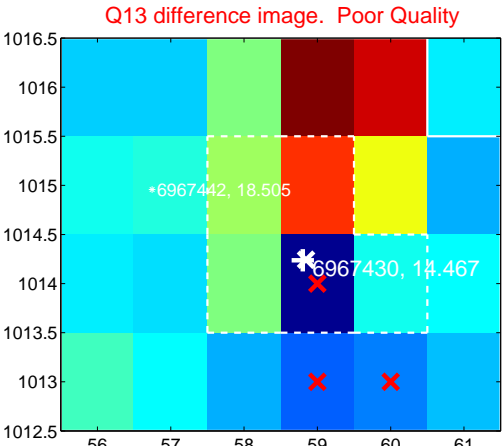
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



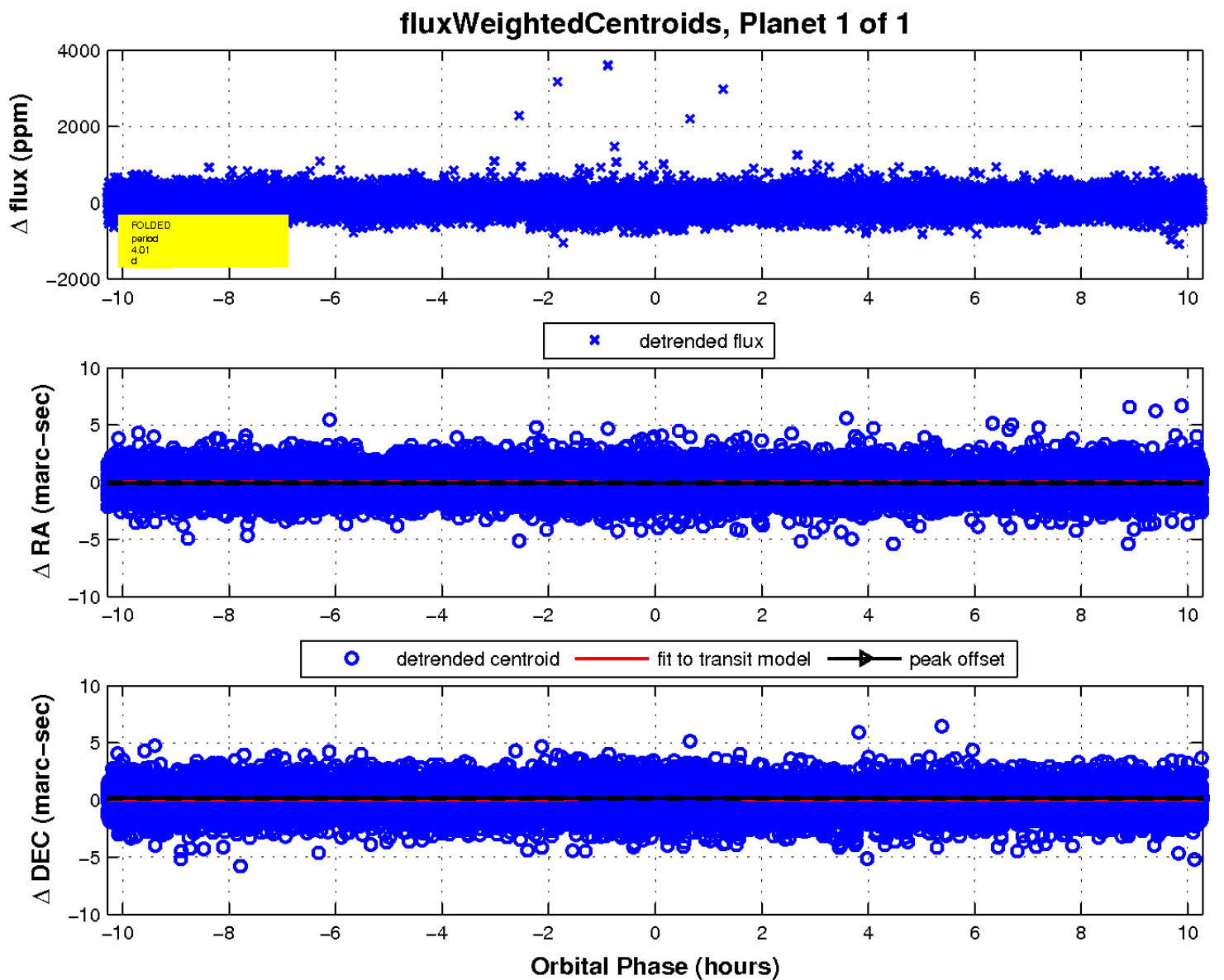
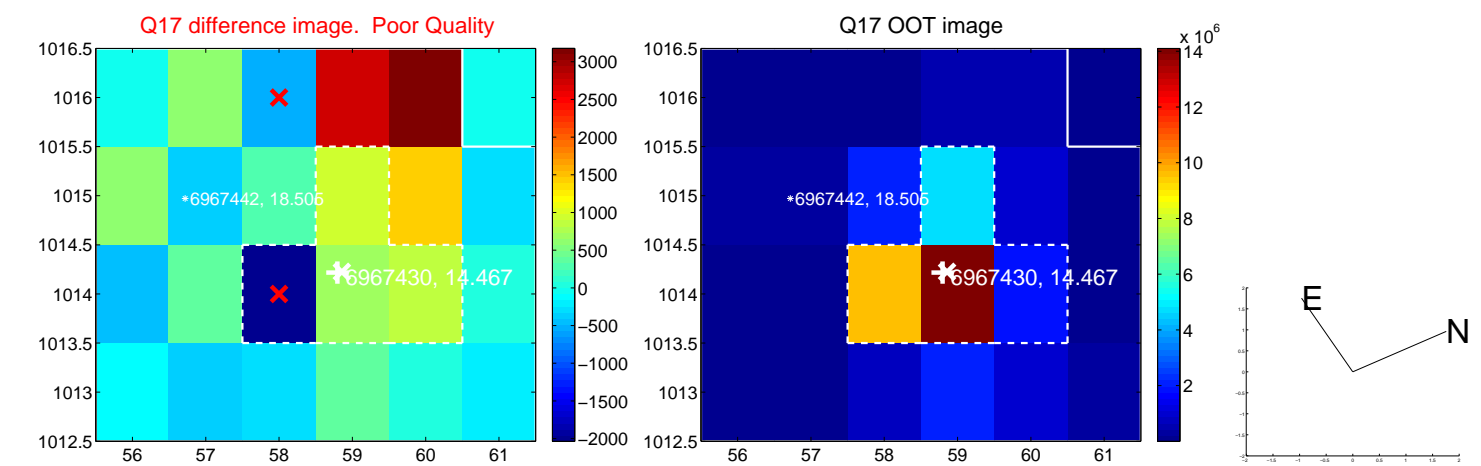
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UKIRT Image

Declination

